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Research article

THE INFLUENCE OF TEACHER-STUDENT COMMUNICATION ON THE IMPORTANCE OF PHYSICAL EDUCATION

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Abstract. *During adolescence, there is a significant risk of sports abandonment associated with sedentarism and overweight. For this reason, Physical Education (PE) classes should be an opportunity to bring physical activity and sport closer to schoolchildren developing, and consolidating healthy lifestyle habits. Considering the importance that teaching communication procedures can have in the motivation of students, and given the lack of specific studies that investigate the influence of these processes on the motivation to practice sport in the context of PE, the aim of this study is to determine the effect of the teacher's communicational dimensions (challenging, encouragement and praise, non-verbal support, understanding and friendliness, and controlling) on the perception of the importance given to PE. The sample was composed of a total of 203 PE students between 10 and 16 years old. The mean (M), standard deviation (SD), skewness (S) and kurtosis (K) of the dimensions of the Teacher Communication (TC) and Importance of Physical Education (IPE) were analysed. In order to determine the relationship between the variables analysed, Pearson's correlation is used. With an aim of determining the effect of the perception of the TC in the classroom on the students' IPE, linear regression is carried out. In data processing, the SPSS 23.0 software is used. The results obtained show that the TC has an effect of 19.7% on IPE. Understanding and friendliness, and controlling dimension are being analysed with the highest standardized regressions coefficient in students' perception of IPE.*

Key words: *Communication Skills, Teachers, Importance of Physical Education.*

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INTRODUCTION

Physical inactivity and obesity are two of the biggest health challenges faced by modern society (Slingerland & Borghouts, 2011). This has become, in recent years, a serious global health problem affecting our young people (Mielgo-Ayuso et al., 2017; Gordon, 2020). To combat this, the promotion and development of physical activity (PA) is essential, as it is associated with several health benefits such as mental health (Biddle, Ciacconi, Thomas, & Vergeer, 2019), well-being (Costigan, Lubans, Lonsdale, Sanders, & del Pozo Cruz, 2019), fitness (Cvejić, Buišić, Mitrović, & Ostojić, 2018), and the prevention of cardiovascular disease in adulthood (Cooper & Radom-Aizik, 2019). Regardless of the importance of PA for the improvement of health, both at a social and scientific level, the public alarm due to the life habits of the younger generations is rising. Such alarm is not only due to the fact that child obesity is increasing, but also because the physical condition and sports practice of adolescents is in continuous decline (Corder et al., 2019). Sedentarism is one of the main threats facing society today. In fact, a large number of children and adolescents do not follow healthy lifestyle habits related to the recommended minimum daily or weekly PA (Corder et al., 2019). In this context, it is, therefore, crucial to address this problem from different perspectives, with the school context being a privileged environment for implementing strategies both within and outside the curriculum, involving the entire educational community (Love, Adams, & van Sluijs, 2019).

Adolescence is a period in which young people are exposed to a myriad of social, biological, and cognitive changes (Meeus, 2011). There, teenagers try to find or shape their identity, integrating themselves into personal adult relationships, and living with the behavioural problems of life (Meeus, 2016). Given that during adolescence identity is not yet constructed, it is during this period of development when people are most exposed to the acquisition of both healthy and unhealthy life habits. The habits acquired during this period are decisive for the development of healthy lifestyles that can be maintained during adulthood (Viner et al., 2015). Therefore, regular PA in adolescence is essential for a healthy development (Cho & Kim, 2019). In this sense, in view of the dynamism and vulnerability of this period, accompanied by its constant changes, it is important to focus attention on the social context that surrounds the young person.

One of the greatest places of influence on adolescents is school, as it is the place where they learn healthy habits and how each of them is addressed (Grao-Cruces, Loureiro, Fernández-Martínez, & Mota, 2016). Within the school context, it is as part of the subject of Physical Education (PE) where it is possible to have a greater impact on healthy habits. In fact, several studies (Fairclough & Stratton, 2005; Lindgren, Haraldsson, & Håman, 2019; Abula et al., 2020) identify PE teachers as key agents in influencing the development of healthy habits in PE classes. Both directly, raising proposals in the classes that help to meet adequate levels of moderate and vigorous Physical Activity (MVPA), as well as indirectly, through the transmission of values, knowledge, skills, etc. Since MVPA are decreasing in both sexes from early on, and especially among women (Ridley & Dollman, 2019; Farooq et al., 2020), PE should be considered and used as a unique opportunity to access, act, and approach young people for the development of healthy living habits from an educational, sports, and movement perspective. Furthermore, the entertainment and performance of PE classes is a powerful proponent of PA in young people (Wallhead, Garn, & Vidoni, 2014). The lack of enjoyment and motivation towards PE classes are important elements to be considered, as motivation towards PE classes has been shown to

enhance and encourage PA from early ages to adolescence (Wallhead et al., 2014). Such an important role of motivation, and more specifically, intrinsic motivation, should be considered when organising and planning what kind of programmes and methodologies are introduced and implemented in PE classes to promote an active and healthy lifestyle (Sierra-Díaz, González-Víllora, Pastor-Vicedo, & López-Sánchez, 2019).

On the other hand, so far, several studies have shown how teachers' communication strategies can help students' motivational processes (Armstrong & Hope, 2016; Akudo, 2020). In the case of PE, studies such as the one conducted by Sparks, Dimmock, Whipp, Lonsdale, and Jackson (2015) highlight how teacher behaviours such as teacher communication have a positive impact in students' experiences in PE in areas like mood, class engagement, intrinsic motivation, efficacy beliefs, and leisure-time. Nevertheless, notwithstanding its importance, the use and mastery of teacher communicative skills, both verbal and non-verbal it is sometimes overlooked (Kelly & Sains, 2017).

Considering the importance that teaching communication procedures can have in the motivation of students, and given the lack of specific studies that investigate the influence of these processes on the motivation to practice sport, in the context of PE, the aim of this study is to know the effect of the teacher's communicational dimensions (challenging, encouragement and praise, non-verbal support, understanding and friendliness, and controlling) on the perception of the importance given to PE.

METHOD

Participants

The sample of the present study has a total of 203 students of Secondary Education in an English bilingual school of the *Comunitat Valenciana* (Spain), 54% girls ($n=110$) and 46% boys ($n=93$). The ages of the participants are from 10 to 16 years old, corresponding to the courses of the English educational system from *Year 7* to *Year 11*, with an average age of 13.07 ± 1.45 years. Considering extracurricular sports practice, 71% of the students are physically active outside of school hours and 29% were not physically active at any time. The study was carried out in accordance with the Declaration of Helsinki (World Medical Association, 2013).

Instruments

The instrument used in the present study was formed by the Teacher Communication Behavior Questionnaire (TCBQ) created and validated by She and Fisher (2000) which measures students' perception of the type of communication used by teachers in their classrooms (Matos, Leite, Brown, & Cirino, 2014). The TCBQ is composed by 40 items distributed in 5 dimensions. Our sample presents good properties of reliability and validity: *Challenging* (e.g. "This teacher asks questions that make me think hard about things that I have learned in class") ($\alpha = .91$), *Encouragement and Praise* (e.g. "This teacher encourages me to express my opinions about a topic") ($\alpha = .89$), *Non-verbal Support* (e.g. "Without speaking, this teacher indicates support for me through his/her facial expression") ($\alpha = .93$), *Understanding and Friendliness* (e.g. "This teacher is willing to explain things to me again") ($\alpha = .93$) and *Controlling* (e.g. "This teacher demands that I listen to instructions") ($\alpha = .96$) all with an acceptable Cronbach's alpha value of over .70

(Fornell & Larcker, 1981). Likewise, the above scale has an overall Cronbach alpha of .96. The second part consisted of the 'Importance of Physical Education' (IPE) created and validated by Moreno, Coll, & Ruiz (2009). The scale is composed by 3 items (e.g. "I think the things I learn in physical education will be useful in my life"), with a general Cronbach's alpha of .87.

The Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity was used to determine the validity of this study. For the TCBQ and IPE scales, the KMO value is .93 and .94 respectively. The Bartlett's test of sphericity was significant for both scales ($p=.001$). Therefore, the sample is appropriate for analysis. All communities are above .54, as the minimum required is .40. Finally, all scales used a 7-point Likert response scale, with 1 meaning "strongly disagree" and 7 "strongly agree".

Procedures

In order to conduct the present study, firstly, the director of the centre was contacted, to whom the project and the questionnaire that would later be completed by the students were presented. Once we had the consent of the school management team and the teachers evaluated, the informed consents were sent to the parents or legal guardians of the students, as they were all underage. Afterwards, the students were gathered for 15 minutes before the PE classes in the computer room and the questionnaire was passed, with a filling time of approximately 10 minutes. The students were informed at all times that the data collected would be anonymous and would be treated only for academic purposes. In addition, to avoid any bias in the responses, it was explained in detail that the teachers would not have access to the information individually. Furthermore, the teachers themselves were not in the classroom at the time of the online completion of the questionnaire. The LimeSurvey software was used to collect the questionnaire, which generates a database directly with the answers obtained.

Statistical analysis

Data processing was conducted using SPSS 23.0 software. We analysed the mean (M), standard deviation (SD), skewness (S) and kurtosis (K) of the dimensions of the Teacher Communication (TC) and Importance of Physical Education (IPE). In addition, in order to know the relationship between the variables analysed, Pearson's correlations were calculated. With the aim of determining the effect of the perception of the teacher's communication in the classroom on the students' IPE, linear regressions were carried out.

RESULTS

Considering the results obtained in the present study, in Table 1 we can see the average assessments of the scales analysed and the dimensions that compose them: TC and IPE, in terms of means, standard deviation, skewness and kurtosis. The distribution of the TC scale has a normal distribution since the values of skewness and kurtosis are between -2 and 2, as well as the IPE scale.

Table 1 Descriptive statistics of Teacher Communication and Importance of Physical Education

| | Mean (SD) | S | K |
|-----------------------------------|-------------|------|------|
| Teacher Communication | 4.22 (1.19) | -.23 | .17 |
| 1. Challenging | 3.93 (1.47) | -.19 | -.82 |
| 2. Encouragement and Praise | 3.50 (1.49) | .20 | -.75 |
| 3. Non-verbal Support | 3.85 (1.64) | .07 | -1.0 |
| 4. Understanding and Friendliness | 4.84 (1.62) | -.64 | -.54 |
| 5. Controlling | 4.99 (1.27) | -.78 | .43 |
| Importance of Physical Education | 4.56 (1.81) | -.44 | -.89 |

Legend: S=Skewness; K=Kurtosis.

Considering the results obtained in the present research, it is observed that there is a significantly positive relationship between *Challenging* and IPE ($r=.40$; $p\leq.001$) and between *Encouragement and Praise* and IPE ($r=.38$; $p\leq.001$). In addition to the above, as reflected in Table 2, there is a significant relationship between *Non-verbal Support* and IPE ($r=.32$; $p\leq.001$), *Understanding and Friendliness* and IPE ($r=.39$; $p\leq.001$), and *Controlling* and IPE ($r=.30$; $p\leq.001$).

Table 2 Correlation between Teacher Communication and Importance of Physical Education

| | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------------------|--------|--------|--------|--------|--------|---|
| 1. Challenging | 1 | | | | | |
| 2. Encouragement and Praise | .67*** | 1 | | | | |
| 3. Non-verbal Support | .57*** | .74*** | 1 | | | |
| 4. Understanding and Friendliness | .60*** | .63*** | .69*** | 1 | | |
| 5. Controlling | .41*** | .24*** | .28*** | .38*** | 1 | |
| 6. Importance of Physical Education | .40*** | .38*** | .32*** | .39*** | .30*** | 1 |

Legend: *= $p\leq.05$; **= $p\leq.01$; ***= $p\leq.001$.

Nevertheless, based on the results obtained in the regression of TCBQ on IPE, the model showed significant results ($F=20.92$; $p\leq.001$). Considering the linear regression performed and the results obtained, we can highlight that the TC scale indicates an effect of 19.70% of the variance of the IPE ($R=.47$; $R^2=.22$; $R^2_{adj}=.20$; $p\leq.001$). The coefficients show that the *Understanding and Friendliness* dimension ($\beta=.17$; $p<.05$) is the most important factor in the model (see Table 3), followed by the *Controlling* dimension ($\beta=.15$; $p<.05$). Standardized coefficients have been considered in all the analyses.

Table 3 Teacher Communication regression on Importance of Physical Education

| | R ² adj | β |
|--------------------------------|--------------------|---------|
| | .20*** | |
| Challenging | | .14 |
| Encouragement and Praise | | .18 |
| Non-verbal Support | | .05 |
| Understanding and Friendliness | | .17* |
| Controlling | | .15* |

Legend: *= $p\leq.05$; **= $p\leq.01$; ***= $p\leq.001$.

DISCUSSION

Communication

Human beings are immersed in a constant process of interaction with the environment (Güleç & Leylek, 2018), with communication being a necessary aspect in the process of production and distribution of information. Under this aspect, communication can be understood as an essential piece in human coexistence, capable of promoting the liberation of feelings and ideas that condition, to a great extent, interpersonal relationships, solidarity, cooperation, empathy, social cohesion and the possibility of understanding among people (Wiemann, 2011). Communication has also been understood as the means of spreading information between social and physical people by using a pre-established code of signs (Rizo García, 2007), being considered as one of the most basic conditions of every human in order to be integrated into society and to empathize with the rest of humans.

In any animated communication, words are accompanied by body and facial expressions, a certain body position, movement when transmitting, eye contact, etc. However, although they commonly go together, two main types of communication can be distinguished: (i) verbal communication highlighted by the use of words and (ii) non-verbal communication characterized by the use of facial expressions, movements and body postures, including the distance at which the communication is maintained, always emphasizing the absence of words.

According to Cabrera Cuevas (2003) there are five different types of communication in the classroom: (i) *affective communication*, which is based on a nearby and expressive language towards the students, emphasizing facial expressions such as smiling or paying attention; (ii) *flexible communication*, based on tolerance towards the students' role and their attitudes. Therefore, there will not be a defined line in the student's role; (iii) *authoritarian communication*, characterized by the imposition of a role by the teacher that provokes the consequent submission and passivity of the students; (iv) *conciliatory communication*, by creating a relationship in which empathy, understanding and conformity with the students stand out. Communication is the basis for making decisions and reaching agreements; and (v) *hierarchical communication*, in which the teacher establishes a role in which he or she is given social recognition.

On the other hand, She and Fisher (2000) developed and validated a questionnaire that measures explicitly five teacher types of communication according to student perceptions: (i) *Challenging*, style of communication where the faculty raise questions, activities, etc. that challenge students, giving them a central role; (ii) *Encouragement and Praise*, where the faculty stimulate students to give their opinion, and include it positively in the dynamics of the classes; (iii) *Non-verbal Support* based on gestures with the head, face, hands, or other parts of the body supporting the student's interventions; (iv) *Understanding and Friendliness*, where teachers transmit to students that they trust them, listening to them and being patient and keeping a close relationship with them; and (v) *Controlling*, where the faculty require students to do things, as they say, obeying them in the instructions they provide, reducing student autonomy.

One way or another, regardless of the theoretical model followed concerning the types of communication by the faculty, as stated in the introduction, teachers' communication processes have an impact on student motivation. Therefore, communication skills are a fundamental in a variety of areas, such as medical training programs (van der Vleuten, van den Eertwegh, & Giroldi, 2019) or in the field of education (Nasheeda, Abdullah, Krauss, &

Ahmed, 2019). Nevertheless, the forms of communication are changing, going from a primarily spoken language, face to face, towards the extended use of social media to communicate with other people. In the educational field, and specifically in PE, there are many studies that have already analysed the introduction and impact of new technologies in PA (Yildiz, Güzel, & Devrim Zerengök, 2019; Cabrera-Ramos, 2020; Díaz-Barahona, 2020). Nevertheless, where is the analysis and study of the oral communication teacher-student developed during classes? There is a research gap in this regard.

Physical Education as a space to develop healthy living habits

Generally, PE is a mandatory subject for a few years in education, so it is a unique scenario to promote healthy living habits and encourage interest in extracurricular PA. The importance students give to PE is closely related to interest in extracurricular PA (Baena-Extremera, Gómez-López, Granero-Gallegos, & Abalde, 2014) and to the creation and establishment of sports habits (Kilpatrick, Hebert, & Jacobsen, 2002). Therefore, in this context, teachers have a responsibility to students not only within the classroom, but also in learning healthy habits.

Within the context of PE, one of the most important theories is the theory of self-determination by Ryan and Deci (2000). These authors distinguish motivation on different levels: intrinsic and extrinsic motivation, while lack of motivation is called amotivation or demotivation. If students are motivated by the teacher, they are likely to attach greater importance to PE and thereby improve their view of sports practice and sport in general. However, if there is no motivation from the teacher or the generated climate that the students perceive is not adequate, a negative attitude towards the subject can be created. In this sense, communication is a key aspect in the teacher-student relationship and in the climate generated in class; however, it has not been previously studied in relation to communication in the field of PE.

Motivation plays a key role in most activities, but it is even more prominent in the field of education and sport, as the commitment and level of involvement with the subject will be greater the higher the motivation of the students. Among the different types of motivation, in the educational field the intention is to achieve a high degree of intrinsic motivation, since various studies (Hein, Müür, & Koka, 2004; Slingerland & Borghouts, 2011; Moy, Renshaw, & Davids, 2016; Sierra-Díaz et al., 2019) have shown how this type of motivation has an important influence on the intentionality of extracurricular sports practice and the creation and consolidation of active and healthy lifestyles.

The subject of PE is a suitable curricular space to develop the motivation of the students towards the practice of sports. Even though PE classes differ in time and content from country to country and from region to region, as a whole they contribute to achieving minimum PE levels (Mayorga Vega, Martínez Baena, & Viciano, 2018). Nevertheless, the total time of the course is different from the time of motor commitment during these lessons, as the latter is significantly less. In any case, PE lessons should be considered as a valuable opportunity to learn about, and develop physical-sports practices that can facilitate the development of extracurricular PA, helping to create healthy physical habits which are fundamental for the development of health (Cho & Kim, 2019).

Given the influence that PE can have on the health of adolescents, the responsibility that PE teachers have is much larger than anyone could possibly think. The creation of motivating educational contexts, planning and developing different, innovative and

motivating tasks and establishing a close and trusting relationship between the teacher and his or her students are important factors for which the responsibility lies, to a large extent, with the PE teaching staff. Within the relationship between teachers and students, communication is a vital factor (Güleç & Leylek, 2018). In this sense, it is during the lessons that a relationship of trust can be efficiently established. In this way, PE teachers become a key agent in promoting active and healthy lifestyles (Sierra-Díaz et al., 2019). Therefore, it is important to be aware of the impact of motivation PE classes on the promotion of PA at early ages (Wallhead et al., 2014).

The role of teacher communication in the classroom

In all fields of action, communication is important. Nevertheless, in the educational field in general, and in schools in particular, communication processes are carried out more intensively, and it is essential to acquire communication skills among people (Cañabate, Martínez, Rodríguez, & Colomer, 2018). Teachers must not only teach their students, but also be responsible for establishing effective communication with them, solving problems and transmitting confidence (Güleç & Leylek, 2018).

Several authors have explained the significance of effective communication between teacher and student, as it will help to establish and maintain a more satisfactory and sincere relationship (Kaya, Ozay, & Sezek, 2008). If students are able to express themselves openly and perceive a feeling of understanding on the part of the teacher, a positive attitude and a positive relationship will be created in which both will be able to express themselves more satisfactorily and with more positive results (Khine & Fisher, 2003). Furthermore, Moreno-Murcia, Huéscar, Peco, Alarcón, & Cervelló (2013), highlight the importance of teacher-student feedback in ensuring that the teaching-learning process is effective. Such feedback is understood as the feedback that needs to be provided to students, enabling them to learn as much as possible from what they are being assessed for (Lambrechts, Mulà, Ceulemans, Molderez, & Gaeremynck, 2013). In this regard, teachers express what they know in such a way that it reaches their students through communication, just as the students themselves manifest what they have learned through language and communication, both oral and written (Rizo García, 2007).

According to Duta, Panisoara, and Panisoara (2015), human beings communicate information, ideas and expectations in different ways, in different contexts and with different people; therefore it is essential to focus attention on how we communicate. Effective and efficient communication between the teacher and student creates a connection between them. Thus, communication plays a key role in the creation and maintenance of a quality learning system (Eupena, 2012).

As we are aware, communication is a fundamental issue in all areas and at all ages, but even more so among Secondary Education students, since they are at a stage where the patterns of behaviour they develop will have a profound influence on later adult life. Therefore, it is important to know and study the surrounding social context in which the PE teacher is involved. In this sense, it is well known that the attitude of the PE teacher contributes directly to the sport practice of the students and in the dissemination of values (Jiménez, García, Santos-Rosa, Moreno, & Cervelló, 2010). Therefore, given the importance that PE teachers have in the conduct of adolescents, it is not surprising that the type of communication that is maintained by PE teachers with students is of major importance. Nevertheless, in spite of the fact that the lack of communication that takes place in

interpersonal relations is a serious problem that occurs in our society, the academic literature is scarce with regards to the analysis of the direct influence that the type of communication of PE teachers with their students has, along with its effects on their sports motivation.

The aim of this study is to know the effect of the teacher's communicational dimensions (challenging, encouragement and praise, non-verbal support, understanding and friendliness, and controlling) on the perception of the importance given to PE. According to the results obtained, the TCBQ has an effect of 19.7% on the student's perceived importance of PE. While so far studies such as the one conducted by Eupena (2012), which encompasses TCBQ within the scope of teacher effectiveness and is perceived as a key element in motivating students to learn, the results of this study are relevant from the point of view that through the communication styles of the PE faculty, it is possible to have an impact that goes beyond the scope of PE, and is closely related to increased extracurricular activity (Cabello, Moyano, & Tabernero, 2018). This, in turn, can have an impact on the generation of healthy lifestyle habits, as Moreno-Murcia et al. (2013) emphasize that student motivation in PE classes can be an important aspect in generating adherence to the physical-sports practice. Furthermore, PE faculty develop a relevant role towards students' motivational experiences, something that can be transposed to autonomous motivation in a leisure-time PA context (Sevil-Serrano, Aibar, Abós, Generelo, & García-González, 2020).

Regarding TCBQ styles, in this study, the *understanding and friendliness* dimension is the most important factor in the model. In the scale used, this dimension corresponds to the confidence that the teacher transmits to the students and the patience that generates a close relationship with them. Teachers who stimulate students and provide positive feedback create more autonomous and positive school contexts and organizational climates (Whilhelmsen, Sorensen, & Seippel, 2018). Thus, the results of this study, which show the significance of the type of communication carried out by PE teachers, are in accordance with the conclusions of the studies of Lindgren and associates (2019), and Abula and associates (2020), where the direct and indirect impact that PE teachers have on the development of healthy habits by students is highlighted. The PE teacher should be aware that they are primarily responsible for creating the subsequent experiences in their students. Therefore, the relationship that they have with them and the sensations that they generate will have, as a consequence, habitual sport practice. The results obtained, on the one hand, are coherent with what was exposed in the previous literature since understanding and friendliness would enter the factors that would lead to the importance of PE. The ability to understand the student and the patience demonstrated to improve the teacher-student relationship is a well-studied aspect of education and is closely related to the final results. Within them, the type of communication that the PE teacher makes is key as it encompasses all the above. Nevertheless, the type of communication expressed by the teaching staff, the climate generated by it must also be added, in which trust and respect must be the pillars of the relationship.

In addition, another important factor in IPE is the *controlling* dimension that corresponds to the monitoring and subsequent feedback generated by the teaching staff. This is in line with statements of Moreno-Murcia, Huéscar, Peco, Alarcón, & Cervelló (2013) and Lambrechts and associates (2013), who highlight the importance of feedback between teacher and student, allowing for maximum learning within the teaching-learning process. Nevertheless, the results obtained contrast with those of other studies such as the ones conducted by Lim and Wang (2009) and Aibar and associates (2015), where the results highlighted that teaching styles that favoured student autonomy were those that favoured

greater intrinsic motivation towards PE, as well as a positive influence on the practice of PA in leisure time. For this reason, the result obtained stands out because it does not follow what is reflected in previous studies in the academic literature. Furthermore, there is no significant relationship between the rest of the types of communication of the teachers analysed towards the importance of PE for students, something that also draws attention, as this is not a result that has been found in similar studies.

In any case, besides highlighting the importance of teachers' communication styles, we agree with what was stated in recent studies (van de Kop, van Kernebeek, Otten, Toussaint, & Verhoeff, 2019; Sevil-Serrano et al., 2020) which suggest strategies of interventions based on multicomponent PA programs. These initiatives that jointly involve not only PE but also other non-curricular areas and social agents (e.g., families and sports associations), going beyond the school, are promising approaches that can enhance the adolescents' PA levels.

CONCLUSIONS

The main results show that teacher-student communication has a high effect on the importance that students attach to EF, with *understanding and friendliness*, and *controlling* as the most important dimensions. These results contrast with other studies which highlight that teaching styles linked to the development of student autonomy are those that can foster a higher level of intrinsic motivation towards the promotion of PA. We did not find a justification for these results, so we recommend that future studies try to investigate this aspect specifically.

This study is not without limitations that should lead to careful consideration of the results. On the one hand, the sample is limited to a single private school with an English educational system in the Comunitat Valenciana Spanish region, something that may bias the results. Therefore, the results should not be generalised and we recommend carrying out similar studies with a larger sample, which also incorporates educational centres of different types (public, concerted and private), in order to ascertain whether the type of school may have any influence on the results.

On the other hand, it would be interesting to conduct qualitative studies, since most of the literature studying the effects of the type of communication on student importance towards PE and its influence on PA levels and other healthy habits is quantitative. Considering these limitations and future lines of research, this research highlights the importance of the type of communication that the PE teacher provides to motivate students towards PE classes.

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UTICAJ KOMUNIKACIJE NASTAVNIK-UČENIK NA ZNAČAJ FIZIČKOG VASPITANJA

Tokom adolescencije postoji značajan rizik od napuštanja sporta, povezanog sa sedentarizmom i prekomernom telesnom masom. Iz tog razloga, časovi fizičkog vaspitanja (PE) trebalo bi da budu prilika za približavanje fizičke aktivnosti i sporta školarcima, razvijanje i učvršćivanje zdravih životnih navika. S obzirom na značaj koji nastavne komunikacijski postupci mogu da imaju u motivaciji učenika i s obzirom na nedostatak specifičnih studija koje istražuju uticaj ovih procesa na motivaciju za bavljenje sportom, u kontekstu PE, cilj ove studije je da se utvrdi efekat nastavnikovih komunikacionih dimenzija (izazivanje, podsticanje i pohvala, neverbalna podrška, razumevanje i druželjubivost, i kontrola) na percepciju značaja koji se daje PE. Uzorak je sačinjavalo ukupno 203 učenika PE uzrasta između 10 i 16 godina. Analizirane su srednja vrednost (M), standardna devijacija (SD), skjunis (S) i kurtosis (K) dimenzija komunikacije nastavnika (TC) i značaj fizičkog vaspitanja (IPE). S ciljem utvrđivanja povezanosti između analiziranih varijabli, primenjena je Pearsonova korelacija, dok je sa ciljem utvrđivanja uticaja TC u učionici na IPE učenika, korišćena je linearna regresija. U obradi podataka korišćen je softver SPSS 23.0. Rezultati pokazuju da TC ima efekat od 19.7% na IPE. Razumevanje i druželjubivost i dimenzija upravljanja su sa najvišim standardizovanim koeficijentom regresije u percepciji učenika o IPE.

Ključne reči: veštine komunikacije, nastavnici, značaj fizičkog vaspitanja.